Virginia Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-305 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name: Reynolds Metals Company

Facility Name: Reynolds Metals Company/Bellwood Printing Plant
Facility Location: 2001 Reymet Road
Richmond, Virginia

Registration Number: Registration no. 50260
Permit Number: PRO50260

November 4, 2002
Effective Date

November 4, 2007
Expiration Date

Robert G. Burnley
Director, Department of Environmental Quality

Signature Date

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I. Facility Information

Permittee
Reynolds Metals Company
P.O. Box 27003
Richmond, VA 23261

Responsible Official
Aaron R. Wall
Plant Manager

Facility
Reynolds Metals – Bellwood Printing Plant
2001 Reymet Road
Richmond, VA 23237-3798

Contact Person
Glenn Johnson
Senior Environmental Engineer
(804) 743-6154

AIRS Identification Number: 51-041-0058

Facility Description: SIC Code 2754 – Commercial Printing, Gravure

Reynolds Metals performs rotogravure printing, laminating and extruding at the Bellwood Printing Plant. The rotogravure printing is performed on paper, board, film and aluminum foil. The thermal and extrusion laminating is performed on packaging products. Other converting processes handled at the plant are embossing, slitting, die cutting, gluing and etc.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
001	1	Boiler (19 Erie City # SAGOH-A18 #6)	27 Mmbtu/hr input	NA	NA	NA	NA – Grandfathered/ Existing Source
002	2	Boiler (20 Erie City SAGOH-15)	13 Mmbtu/hr input	NA	NA	NA	NA – Grandfathered/ Existing Source
003	3	Boiler (21 Erie City SAGOH-15)	20 Mmbtu/hr input	NA	NA	NA	NA – Grandfathered/ Existing Source
Process Equipment							
021	4	Includes Nos. 1, 2, and 3 **(only for the treating station)**, 4, 6, 8, 9, 10, 11 Printing Presses; Nos. 1, 2, and 3 Extruders No. 1 Press (max. web width: 55") No. 2 Press (max. web width: 45")	 850 ft/min 800 ft/min	Reco – Thermal oxidizer with a 70% Capture efficiency with a 95% destruction efficiency. (The Reco thermal oxidizer was used to control only No. 1 Laminator which	CD001	VOC	RACT SIP Consent Order and Agreement (DSE- 414-A-86)

		No. 3 Press **(only for the treating station)** (max. web width: 45”) No. 4 Press (max. web width: 45”) No. 6 Press (max. web width: 42”) No. 8 Press (max. web width: 45”) No. 9 Press (max. web width: 43”) No. 10 Press (max. web width: 45”) No. 11 Press (max. web width: 45”) No. 1 Extruder (max. web width: 45”) No. 2 Extruder (max. web width: 45”) No. 3 Extruder (max. web width: 45”)	1,100 ft/min 710 ft/min 800 ft/min 1,000 ft/min 620 ft/min 1,000 ft/min 1,000 ft/min 1,010 ft/min 1,025 ft/min 1,000 ft/min	has been removed from the plant only the oxidizer remains.) Smith – Thermal Oxidizer with an estimated 70% capture efficiency with an actual 94% destruction efficiency. (The Smith thermal oxidizer controls all stations except for the treat station on No. 3 Press.)	CD002		
022	5	No. 5 Extruder (max. web width: 72”)	1,000 ft/min	NA	NA	NA	August 5, 2002
023	6	No. 7 Printing Press (max. web width: 55 7/8”)	1,000 ft/min	NA	NA	NA	October 29, 1998
024	7	No. 3 Laminator (max. web width: 45”)	1,000 ft/min	NA	NA	NA	RACT SIP Consent Order and Agreement (DSE- 414-A-86)

							RACT SIP Consent Order and Agreement (DSE- 413-A-86)
029	12	No. 2 Laminator – Compliant Coating (max. web width: 50”)	No speed limitation when using inks and coatings that contain no VOCs as per Condition No. 7 of the May 15, 2002 permit.	NA	NA	NA	May 15, 2002
030	13	No. 2 Laminator – Noncompliant Coating (Maximum Web Width: 50”)	1,000 ft/min[1]	Wheelabrader – Thermal oxidizer with a minimum destruction efficiency of 96.5% along with a total enclosure for a 100% capture efficiency.	CD003	VOC	May 15, 2002

027	10	Lab Press-Extruder-Laminator Lab Press (4 Color Lab Press) (max. web width: 14") Lab Extruder (max. web width: 24") Lab Laminator (max. web width: 12") COMAC (max. web width: 4")	 700 ft/min 700 ft/min 700 ft/min 300 ft/min	NA	NA	NA	May 15, 2002
028	11	Pilot Coater/Laminator (max. web width: 16")	300 ft/min^2	NA	NA	NA	May 15, 2002
031	14	Metals Edgers Wash Solution, Ink Room Mixing Losses, General Floor & Plant Clean-up	NA	NA	NA	NA	Grandfathered
032	15	(3) Press Parts Washing Machines, 43 Gallon Wash Tank, and (1) Manual Wash Tank with 19.5 sq. ft. open area	1 cycle/hr for each of the (3) Press Parts Washing Machines while using a wash solution > 4.5%	Progressive Recovery System – Air to Water Heat Exchanger	CD004-CD006	VOC	May 30, 2001
		Aboveground Storage Tanks – ASTs		Each listed tank has		VOC	NA

I01 & I14		(2) 5,000 Gallon tanks (Tank ID Nos. 1 and 14)		a submerged fill pipe			
I02 – I13,		(12) 3,000 gallon tanks (Tank ID Nos. 2- 13),					
I15 & I16		(2) 4,000 gallon tanks (Tank ID Nos. 15 and 16)					
I18		(1) 10,000 gallon tank (Tank ID No. 18)					

*The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

[1]: The Title V permit application supplement "Attachment A – dated May 25, 2001" states "1,110 ft/min". Instead "1,000 ft/min" was used as this is what was stated as the maximum rated capacity in the February 29, 1996 permit (currently superseded by May 15, 2002 permit).

[2]: The Title V permit application supplement "Attachment A – dated May 25, 2001" states "500 ft/min". Instead "300 ft/min"(= 6,000 yds/hr) was used as this is what was stated as the maximum rated capacity in the December 11, 1991 permit (currently superseded by May 15, 2002 permit).

III. Fuel Burning Equipment Requirements – (emission unit ID# 001, 002, and 003 (respectively)).

A. Limitations

1. Emissions from the operation of the 27 mmbtu/hr 19 Erie City Boiler SAGOH-A18#6, the 13.0 mmbtu/hr 20 Erie City Boiler SAGOH-15, and the 20.0 mmbtu/hr 21 Erie City Boiler SAGOH-15 (emission unit ID #s 001, 002, and 003) shall not exceed the limits specified below:

   001 (27 mmbtu/hr)
   PM-10
   $1.0906(27+13+20)^{-0.2594}$ = 0.38 lbs/mmbtu

   Sulfur Dioxide
   2.64 lbs/mmbtu

   002 (13.0 mmbtu/hr)
   PM-10
   $1.0906(27+13+20)^{-0.2594}$ = 0.38 lbs/mmbtu

   Sulfur Dioxide
   2.64 lbs/mmbtu

   003 (20.0 mmbtu/hr)
   PM-10
   $1.0906(27+13+20)^{-0.2594}$ = 0.38 lbs/mmbtu

   Sulfur Dioxide
   2.64 lbs/mmbtu

   (9 VAC 5-40-900, 9 VAC 5-40-930 and 9 VAC 5-80-110)

2. Visible emissions from each of the boilers (27 mmbtu/hr 19 Erie City. Boiler SAGOH-A18#6, the 13.0 mmbtu/hr 20 Erie City Boiler SAGOH-15, and the 20.0 mmbtu/hr 21 Erie City Boiler SAGOH-15 - emission unit ID #s 001, 002 and 003) shall not exceed 20 percent opacity except for one six-minute period in any one hour of not more than 60 percent opacity. Failure to meet the preceding requirements because of the presence of water vapor shall not be a violation of these requirements.
   (9 VAC 5-40-940 and 9 VAC 5-80-110 B. of State Regulations)

B. Monitoring and Recordkeeping

1. The emissions from each of the boilers (27 mmbtu/hr 19 Erie City Boiler SAGOH-A18 #6, the 13 mmbtu/hr 20 Erie City Boiler SAGOH-15 and the 20 mmbtu/hr 21 Erie City Boiler SAGOH-15 - emission unit ID #s: 001, 002, and 003) shall be observed visually at least once each calendar month [except when burning residual (Nos. 4, 5, or 6) oil which shall be increased to weekly evaluations] for at least a brief time period during normal operations to determine if there are normal visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having above normal visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded. If any boiler(s) (27 mmbtu/hr 19 Erie City Boiler SAGOH-A18 #6, the 13 mmbtu/hr 20 Erie City Boiler SAGOH-15 and the 20 mmbtu/hr 21 Erie City Boiler SAGOH-15 - emission unit ID #s: 001, 002, and 003) is/are not operated during the calendar month, then no visible emission needs to be performed along with records documenting the boiler(s) were not operated during the calendar month.

   (9 VAC 5-170-160, 9 VAC 5-80-110 E. and F. of State Regulations)

2. Records shall be maintained of all oils which are burned in the 27 mmbtu/hr 19 Erie City Boiler SAGOH-A18 #6, the 13 mmbtu/hr 20 Erie City Boiler SAGOH-15 and the 20 mmbtu/hr 21 Erie City Boiler SAGOH-15 (emission unit ID #s: 001, 002, and 003) along with the heat content and sulfur content. A copy of the Purchase Order specification requiring sulfur content $\leq$ 2.4% shall be used to demonstrate compliance with the recordkeeping for sulfur content. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

   (9 VAC 5-170-160, 9 VAC 5-80-110 E. and F. of State Regulations)

3. The heat content of each oil burned in the 27 mmbtu/hr 19 Erie City Boiler SAGOH-A18 #6, the 13 mmbtu/hr 20 Erie City Boiler SAGOH-15 and the 20 mmbtu/hr 21 Erie City Boiler SAGOH-15 (emission units ID #s: 001, 002, and 003) shall be inserted into one of the following respective equations, unless the heat content of each oil is documented to be above the respective oils listed (i.e. distillate (#1 $\geq$ 134,000 Btu/gal and #2 $\geq$ 138,000 Btu/gal), #4 residual oil $\geq$ 144,000 Btu/gal, #5 residual oil $\geq$ 146,000 Btu/gal, and #6 residual oil $\geq$ 150,000 Btu/gal). If the respective oil's heat content is above the previously listed heat contents, it will be presumed the fuel burning equipment is in compliance with the allowable particulate emissions for each fuel burning equipment unit when operating at less than rated capacity as according to 9 VAC 5-40-900 B.2 of the State Regulations :

   Distillate fuel oil:

   PM_{10} Emission Factor= 2 * lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = 0.002 lb of PM_{10}/gal

No. 4 fuel oil:
PM_{10} Emission Factor = 7 * lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = 0.007 lb of PM_{10}/gal

No. 5 fuel oil:
PM_{10} Emission Factor =9.19(%S)+3.22* = A lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = B lb of PM_{10}/gal

No. 6 fuel oil:
PM_{10} Emission Factor= 10 * lb of PM_{10}/thousand gals x (1 thousand gals/1,000 gal.) = 0.010 lb of PM_{10}/gal

*: Or current EPA, AP-42 emission factor.

Distillate fuel oil:
1 gal/heat content of fuel (MMBtu) X 0.002 lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

No. 4 fuel oil:
1 gal/heat content of fuel (MMBtu) X 0.007 lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

No. 5 fuel oil:
1 gal/heat content of fuel (MMBtu) X B lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

No. 6 fuel oil:
1 gal/heat content of fuel (MMBtu) X 0.010 lb of PM_{10}/gal = C lb of PM_{10}/MMBtu

(9 VAC 5-80-110 E. and K. of State Regulations)

4. The sulfur content as per supplier certification of each oil burned for each of the boilers (27 mmbtu/hr 19 Erie City Boiler SAGOH-A18 #6, the 13 mmbtu/hr 20 Erie City Boiler SAGOH-15 and the 20 mmbtu/hr 21 Erie City Boiler SAGOH-15 (emission unit ID #s: 001, 002 and 003)) shall be inserted into one of the following respective equations, unless the sulfur content is $\leq$ 2.5%, it will be presumed to be in compliance:

Distillate:

142(%S)* = A lb of $SO_2/10^3$ gals x (1 Thousand Gals/ 1,000 gal.) = B lb of SO_2/gal

No. 4 fuel oil

150 (%S)* = A lb of $SO_2/10^3$ gals x (1 Thousand Gals/ 1,000 gal.) = B lb of SO_2/gal

No. 5 or No. 6 fuel oil

157(%S)* = A lb of $SO_2/10^3$ gals x (1 Thousand Gals/ 1,000 gal.) = B lb of SO_2/gal

*: Or current EPA, AP-42 emission factor.
(9 VAC 5-170-160, 9 VAC 5-80-110 E. and K. of State Regulations)

5. The heat content of each oil shipment which is burned in the 27 mmbtu/hr 19 Erie City Boiler SAGOH-A18 #6, the 13 mmbtu/hr 20 Erie City Boiler SAGOH-15 and the 20 mmbtu/hr 21 Erie City Boiler SAGOH-15 (emission unit ID#s 001, 002 and 003) and the results from the respective equation from Condition No. 4 shall be inserted into the following equation to determine compliance with the fuel burning SO_2 standard, unless the sulfur content is $\leq$ 2.5%, it will be presumed to be in compliance:

   Distillate or the use of No. 4 or No. 5 or No. 6 fuel oil:

   1 gal/heat content of fuel (MMBtu) X B lb of SO_2/gal = C lb of SO_2/MMBtu

   (9 VAC 5-170-160, 9 VAC 5-80-110 E. and K. of State Regulations)

IV. Process Equipment Requirements – (emission unit ID # 022 – No. 5 Extruder)

A. Limitations

Emission Controls:

1. Volatile organic compound (VOC) emissions from the No. 5 Extruder (emission unit ID #022) shall be reduced by the use of compliant inks or surface coating as defined in 9 VAC 5-40-5070 of State Regulations.
   (9 VAC 5-80-110 and Condition 3 of 8/5/02 Permit)

2. Volatile organic compound (VOC) emissions shall, to the extent practicable, be controlled or reduced from cleanup, washup, or/and disposal and shall include the following, or equivalent, as a minimum.

   a. VOC shall not be intentionally spilled, discarded to sewers, stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.

   b. All VOC containing receptacles shall be closed at all times except during loading and unloading.

   c. VOC emissions shall be controlled and/or reduced by storing cleaning solutions and applicators in covered containers or machines with remote reservoirs when not in use.

   (9 VAC 5-80-110 and Condition 4 of 8/5/02 Permit)

OPERATING/EMISSION LIMITATIONS

Material Usage:

3. Volatile organic compounds as applied to No. 5 Extruder (emission unit ID# 022) shall not exceed 45 tons per year, calculated monthly as the sum of the previous consecutive twelve (12) months. VOC as applied shall include: (1) the VOC in the inks, coatings, treats, waxes, and other surface applications applied to the substrate, and (2) the VOC in any cleaning material used during a particular job.
(9 VAC 5-80-110 and Condition 5 of 8/5/02 Permit)

4. The natural gas driers (associated with emission unit ID # 022) are restricted to natural gas and propane and fuel limitations listed below. Usage shall be calculated monthly as the sum of the previous consecutive 12 months' usage.

NATURAL GAS:

Minimum heat content:	1025 Btu/scf HHV.
Maximum 12 months usage:	25.6 x 10^6 cf.

PROPANE:

Minimum heat content:	91.5 mmBtu/1000 gal HHV.
Maximum 90 days per year usage:	70,800 gallons.

(9 VAC 5-80-110 and Condition 6 of 8/5/02 Permit)

Emission Limits:

5. Emissions from the operation of the flame dryers (associated with emission unit ID # 022), shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	0.5 lbs/hr	1.5 tons/yr*
Carbon Monoxide	0.3 lbs/hr	1.4 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.

Volatile Organic Compound Emissions from the operation of No. 5 Extruder (emission unit ID # 022), shall not exceed the limits specified below:

Volatile Organic Compounds	30 lbs/hr	45 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110 and Condition 7 of the 8/5/02 Permit)

Visible Emission Limit:

6. Visible emissions from No. 5 Extruder (emission unit ID # 022) shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction. (9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 8 of the 8/5/02 Permit)

B. Monitoring and Recordkeeping

On Site Records:

1. The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Region. These records shall include, but are not limited to:

    a. Daily records demonstrating compliance with the requirements in **Air Quality Program Policies and Procedures document #AQP-4, Procedures for Maintaining Records for Surface Coating Operations and Graphic Arts Printing Processes states the following**:

        1. The owner shall maintain the following information at all times:

            a. Coating application system number.

            b. Hours of operation per day and per year.

            c. Method of application.

            d. Number and types of coats applied to the substrate.

            e. Drying method.

            f. Substrate type.

        2. The owner shall maintain the following information for **each coating** at all times:

            a. Supplier name, coating name and identification number.

            b. Coating density (pounds per gallon).

            c. Volatile content of coating as supplied (percent by weight).

            d. Water content of coating as supplied (percent by weight).

e. Exempt solvent content of coating as supplied (percent by weight).

f. Solids content of coating as supplied (percent by volume)

g. Name of diluent added, if any.

h. Identification number of diluent.

i. Diluent volatile organic compound density (pounds per gallon).

j. Volatile organic compound content of diluent (percent by weight).

k. Exempt solvent content of diluent (percent by weight).

l. Diluent/coating ratio (gallon diluent per gallon coating).

3. The owner shall maintain the following information for **each coating application system** on a **daily** basis:

   a. Coating application system number.

   b. Time period of each application run.

   c. Coating identification number.

   d. Amount of coating used.

   e. Diluent and clean up solvent identification numbers.

   f. Amount of diluent used.

   g. Amount of clean up solvents used.

   h. Calculated volatile organic compound emissions.

4. Additional recordkeeping requirements for surface coating operations with add-on control systems.

   a. The owner shall maintain the following information at all times:

(1) Control device identification number and model number.

(2) Manufacturer.

(3) Installation date.

(4) Coating application systems controlled.

(5) Whether or not the control device is always in operation when the system it is serving is in operation.

(6) Type of control device.

(7) Destruction or removal efficiency.

(8) Date tested (if not tested, method of determining destruction efficiency).

(9) Design combustion temperature (degrees Fahrenheit) for thermal incinerators.

(10) Design exhaust gas temperature (degrees Fahrenheit), design temperature rise across catalyst bed (degrees Fahrenheit), and anticipated frequency of catalyst change for catalytic incinerators.

(11) Design inlet temperature of cooling medium (degrees Fahrenheit) and design exhaust gas temperature (degrees Fahrenheit) for a condenser.

(12) Design pressure drop across the adsorber at breakthrough, specific volatile organic compound species analyzed, and its concentration at breakthrough for a carbon adsorber.

(13) Emission test results, including inlet volatile organic compound concentration (parts per million), outlet VOC concentration (parts per million), method of concentration determination, and date of determination.

(14) Type and location of capture system.

(15) Capture efficiency (percent).

(16) Method of determining capture efficiency.

b. Records demonstrating inks used meet the definition of compliant ink in 9 VAC 5-40-5070. The records shall be available as paper copy material safety data sheets, electronic material safety data sheets, vendor specifications, or current certified product data sheets (CPDS) or test data of which the information contained therein is determined using approved EPA test methods (e.g. 40 CFR part 60 appendix A – EPA Method 24).

c. Monthly material balance of VOC used at No. 5 Extruder (emission unit ID # 022), to include:

(i) VOC as applied to No. 5 Extruder (emission unit ID # 022) (as defined in Condition 5 (of the 8/5/02 permit))

(ii) VOC calculation of emissions

d. Annual VOC emission calculations, calculated monthly as the sum of the previous consecutive twelve months' emissions.

e. The throughput of natural gas and propane calculated monthly as the sum of the previous consecutive 12 months' fuel throughput. Fuel usage may be based on actual hours of operation of the driers.

f. Calculated air pollutants from No. 5 Extruder (emission unit ID # 022), using a calculation method approved by the Piedmont Region to verify compliance with the lb/hr and annual emissions limit in Condition Number seven (of the 8/5/02 permit).

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 12 of 8/5/02 Permit)

2. The emissions from No. 5 Extruder (emission unit ID # 022) shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded If an emission point is not operated during the calendar month, then no visible emission observation needs to be performed and a negative declaration shall be entered in the record stating the emission unit was not in

operation. Should emission point operation be limited or intermittent, and/or adverse conditions (e.g. weather or darkness) prevail during the limited or intermittent operating period, no visible emission observation needs to be performed and a negative declaration shall be entered in the record along with the date(s) of operation, the hours of operation of the emission unit and a notation indicating inclement weather.

(9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

3. Records shall be kept once per week when the machine operates noting compliance or noncompliance, to the extent practicable, with permit Condition No. 4 of the 8/5/02 NSR permit and what and when corrective actions were taken to bring it back into compliance.

   (9 VAC 5-80-110 E and F)

C. Testing

Ink Tests:

1. The facility shall test, at the request of the Department of Environmental Quality, to determine if inks used at the facility meet the definition of compliant ink as stated in 9 VAC 5-40-5070.

   (9 VAC 5-50-260 and Condition 9 of 8/5/02 Permit)

V. Process Equipment Requirements – (emission unit ID# 23 – No. 7 Printing Press)

A. Limitations

1. Volatile organic compound (VOC) emissions from the No. 7 Printing Press (emission unit ID# 23) shall be controlled by use of compliant inks (as defined under 9 VAC 5-40-5070) and limiting the VOCs as applied. The printing press shall be provided with adequate access for inspection.
   (9 VAC 5-80-110 and Condition 3 of 10/29/98 Permit)

2. The VOCs as applied for the operation and cleaning of No. 7 Printing Press (emission unit ID# 23) shall be no more than 96.0 tons per year, calculated monthly as the sum of each consecutive 12 month period. VOCs as applied shall include: 1) the VOC in the inks, coatings, treats, waxes, adhesives, thinners and other surface applications applied to the substrate, and 2) the VOC in any cleaning materials used during a particular production job. VOC emissions from the operation and job specific cleaning of No. 7 Press (emission unit ID# 23) shall be calculated using a material balance (based on recordkeeping as required under AQP-4) of the job-specific materials issued to the job less the job specific materials returned to inventory. The VOC emissions shall be calculated monthly for the total of the previous twelve month period.
   (9 VAC 5-80-110 and Condition 4 of 10/29/98 Permit)

3. Visible emissions from No. 7 Printing Press (emission unit ID# 23) shall not exceed 20% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
   (9 VAC 5-50-80 and 9 VAC 5-80-110, Condition No. 6 of 10/29/98 Permit)

4. Emissions from the operation of No. 7 Printing Press (emission unit ID# 23) shall not exceed the limits specified below:

Volatile Organic Compounds	507.5	lbs/hr	12,180.0	lbs/day	96.0	tons/yr*

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 5 of 10/29/98 Permit)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

    a. Records demonstrating inks used meet the definitions in 9 VAC 5-40-5070 of compliant ink.

    b. Daily records demonstrating compliance with the requirements in Air Quality Program Policies and Procedures document #AQP-4, Procedures for Maintaining Records for Surface Coating Operations and Graphic Arts Printing Processes (See Page 13, Recordkeeping Condition B.1.a. for No. 5 Extruder, emission unit no. 022)

    c. Monthly material balance of VOC used at No. 7 Printing Press (emission unit ID# 23), to include:

        (1) VOCs as applied (as defined in Condition No. 2 (Condition No. 4 of 10/29/98 permit)) used in No. 7 Printing Press (emission unit ID# 23);

        (2) Calculation of emissions.

    d. Total of the previous twelve months' emissions.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.
    (9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 7 of 10/29/98 Permit)

2. The emissions from No. 7 Printing Press (emission unit ID# 23) shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded. If an emission point is not operated during the calendar month, then no visible emission observation needs to be performed and a negative declaration shall be entered in the record stating the emission unit was not in operation. Should emission point operation be limited or intermittent, and/or adverse conditions (e.g. weather or darkness) prevail during the limited or intermittent operating period, no visible emission observation needs to be performed and a negative declaration shall be entered in the record along with the date(s) of operation,

the hours of operation of the emission unit and a notation indicating inclement weather.

(9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

VI. Process Equipment Requirements – (emission unit ID# 029 – 030 – No. 2 Laminator – Compliant Coating and Non-compliant coating)

A. Limitations

1. Volatile organic compound (VOC) emissions from the No. 2 Laminator (emission unit ID# 030) printing/ coating stations, when applying non-compliant inks and coatings (i.e., those not meeting the criteria in 9 VAC 5-40-5080 A.1., 2., or 3., and required to install an emissions control system) shall be controlled by a 100 percent efficient capture system and a thermal oxidizer having a minimum destruction efficiency of 96.5 percent. The No. 2 Laminator (emission unit ID# 030) and the thermal oxidizer shall be provided with adequate access for inspection.

   (9 VAC 5-80-110 and Condition 3 of 5/15/02 Permit)

   or

   Volatile organic compound (VOC) emissions from the No. 2 Laminator (emission unit ID# 029) printing/coating stations shall be controlled by the use of compliant inks and coatings (those meeting the criteria of 9 VAC 5-40-5080 A.1., 2., or 3.)
   (9 VAC 5-80-110 and Condition 3 of 5/15/02 Permit)

2. During periods when compliant inks and coatings are used, Reynolds Metals Company shall be permitted to exhaust the individual station(s) to atmosphere. Compliant inks and coatings shall be determined on an "as applied" basis per station. Averaging of the VOC content of the inks and coatings across stations to comply with 9 VAC 5-40-5080 A.1., 2., or 3. is not permitted. No thermal oxidizer efficiency shall be applied to the compliant ink usage. These emissions shall not be credited to the oxidizer. The emissions shall be accounted for in the daily recordkeeping to determine compliance with emission limits specified in Condition 9 of the 5/15/02 permit.

   (9 VAC 5-80-110 and Condition 4 of 5/15/02 Permit)

3. The thermal oxidizer (associated with emission unit ID# 030) shall maintain a minimum combustion zone temperature of 1400^{o}F and a minimum retention time of 0.5 seconds. The thermal oxidizer shall be equipped with a device to continuously measure the temperature of the combustion zone and an indication of date and time.

   (9 VAC 5-80-110 and Condition 5 of 5/15/02 Permit)

4. Each total enclosure of the capture system shall meet the following criteria:

   a. Any natural draft openings shall be at least four equivalent opening diameters from each VOC emitting point;

   b. The total area of all natural draft openings shall not exceed five percent of the surface area of the enclosure's four walls, floor and ceiling;

   c. The average facial velocity of air through the natural draft openings shall be at least 200 feet per minute and the direction of flow shall be into the enclosure.

   d. All access doors and windows shall be closed during routine operation of the laminator printing/coating stations.

   (9 VAC 5-80-110 and Condition 6 of 5/15/02 Permit)

5. The approved auxiliary fuels for the dryers and the thermal oxidizer is natural gas and a propane/air mixture. A change in the fuel may require a permit to modify and operate.
   (9 VAC 5-80-110 and Condition 8 of 5/15/02 Permit)

6. The No. 2 Laminator (emission unit ID# 030) shall operate at a maximum speed of 1,000 feet per minute while using inks and coatings that contain volatile organic compounds. There shall be no speed limitation while the No. 2 Laminator (emission unit ID# 029) is using inks and coatings that contain no volatile organic compounds.
   (9 VAC 5-80-110 and Condition 7 of 5/15/02 Permit)

7. Visible emissions from the No. 2 Laminator (emission unit ID# 029 and 030) process shall not exceed 20 % opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 % opacity.
   (9 VAC 5-50-80 and 9 VAC 5-80-110)

8. Emissions from the operation of the No. 2 Laminator (emission unit ID# 030) shall not exceed the limits specified below:

Volatile Organic Compounds	57.5 lbs/hr	1,380 lbs/day	29.6 tons/yr*

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 9 of 5/15/02 Permit)

B. Monitoring and Recordkeeping

1. The thermal oxidizer (associated with emission unit ID# 030) shall maintain a minimum combustion zone temperature of 1400^{o}F and a minimum retention time of 0.5

seconds. **The thermal oxidizer shall be equipped with a device to continuously measure the temperature of the combustion zone and an indication of date and time.**

(9 VAC 5-80-110 and Condition 5 of 5/15/02 Permit)

2. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit and shall be consistent with DEQ policy. The content of and format of such records shall be arranged with the Director, Piedmont Regional Office. These records shall include, but are not limited to:

   a. Daily records demonstrating compliance with the requirements in Air Quality Program Policies and Procedures, Number AQP-4 ***(See Page 13, Recordkeeping Condition B.1.a. for No. 5 Extruder, emission unit no. 022)***.

   b. Continuous thermal oxidizer (associated with emission unit ID# 030) combustion zone temperature records, indicating date and time.

   c. Records demonstrating compliant inks and coatings, as applied, meet the criteria in 9 VAC 5-40-5080 A1., 2., or 3.

   d. Annual VOC emission calculations, calculated monthly as the sum of the previous consecutive twelve months' emissions.

   e. A maintenance schedule for all air pollution control equipment.

   f. Scheduled and unscheduled maintenance records for all air pollution control equipment.

   g. Inventory of spare parts to minimize durations of air pollution control equipment breakdowns.

   h. Written operating procedures for all air pollution control equipment.

   i. Operator training records.

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 11 of 5/15/02 Permit)

3. The No. 2 Laminator (emission unit ID # 030) thermal oxidizer's combustion zone temperature shall be monitored through an interlock system incorporated into the oxidizer operation control panel which has at a minimum a set point temperature of 1400^{o}F. If the oxidizer temperature falls below the minimum set point temperature of

1400°F, the interlock shall shut down the laminator. Records shall be kept of the date and time that the interlock shutdown occurs**.**

(9 VAC 5-80-110 E and F)

4. An annual calibration shall be performed on the current thermocouples for the thermal oxidizer's combustion zone temperature (associated with emission unit ID# 030) in accordance with written procedures recommended by the thermocouple manufacturer. Annual records shall be kept stating the date the calibration was performed along with the calibration results.

   (9 VAC 5-80-110 E and F)

5. The average facial velocity of air through the natural draft openings for the No. 2 Laminator's (emission unit ID # 030) total enclosure shall be monitored by a differential pressure meter which is connected to an alarm system located on the operator's control panel. If the differential pressure meter, indicates a pressure drop below 0.007 inches of H_2O (equates to 200 fpm) for fifteen minutes, records will be kept of the date and time that the differential pressure dropped below 0.007 inches of H_2O (equates to 200 fpm) and of the immediate corrective action taken. Demonstration of compliance shall begin within ninety days from issuance of this permit to allow for installation and testing of a meter and alarm system.

   (9 VAC 5-80-110 E and F)

6. The digital readout of the speed of the No. 2 Laminator (emission unit ID #030) shall be tracked by data acquisition.

   (9 VAC 5-80-110 E and F)

7. The emissions from the No. 2 Laminator (emission unit ID# 029 and 030) shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded. If an emission point is not operated during the calendar month, then no visible emission observation needs to be performed and a negative declaration shall be entered in the record stating the emission unit was not in operation. Should emission point operation be limited or intermittent, and/or adverse conditions (e.g. weather or darkness) prevail during the limited or intermittent operating period, no visible emission observation needs to be performed and a negative declaration shall be entered in the record along with the date of operation, the hours of operation of the emission unit and a notation indicating inclement weather.

   (9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

C. Testing

Ink Tests:

1. The DEQ may require testing to determine if compliant ink meets the definition of compliant ink contained in 9 VAC 5-40-5070 of the Regulations.
   (9 VAC 5-80-110 and Condition 10 of 5/15/02 permit)

VII. Process Equipment Requirements – (emission unit ID# 027 – Lab press –Extruder-Laminator and emission unit ID# 028 – Pilot Coater/Laminator)

A. Limitations

1. The throughput of VOC of all product quality printing/laminating processes (emission unit ID# 027) at the Packaging Technology Center and Process Development Center shall be no more than 400 pounds in any 30 day period, calculated monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 3 of 5/15/02 Permit)

2. The throughput of VOC of all product quality coating/laminating processes (emission unit ID# 028) at the Packaging Technology Center and Process Development Center shall be no more than 400 pounds in any 30 day period, calculated monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 4 of 5/15/02 Permit)

3. Visible emissions from the product quality printing/laminating unit (emission unit ID# 027) at the Packaging Technology Center shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
   (9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 8 of 5/15/02 Permit)

4. Total emissions from the operation of all product quality printing/laminating processes (emission unit ID# 027) at the Packaging Technology Center and Process Development Center shall not exceed the limitations specified below:

Volatile Organic Compounds	400	lbs/month	2.4 tons/yr

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 5 of 5/15/02 Permit)

5. Total emissions from the operation of all product quality coating/laminating processes at the Process Development Center (emission unit ID# 028) shall not exceed the limitations specified below:

Volatile Organic Compounds	400	lbs/month	2.4 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110 and Condition 6 of 5/15/02 Permit)

6. Notwithstanding the limitations specified in Conditions 5 and 6 of the 5/15/02 permit, total emissions from the operation of all product quality printing/laminating processes and coating/laminating processes at the Packaging Technology Center and Process Development Center (emission unit ID#s 027 and 028) shall not exceed the limitations specified below:

Volatile Organic Compounds	18.6	lbs/hr	4.8 tons/yr*

*Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110 and Condition 7 of 5/15/02 Permit)

B. Monitoring and Recordkeeping

1. The permittee shall retain records of volatile organic compound throughput for all product quality printing/laminating processes and for all product quality coating/laminating processes (emission unit ID#s 027 and 028) (on a 30-day rolling average basis). Acceptable records to demonstrate VOC content shall be the use of current material safety data sheets (MSDS) or current certified product data sheets (CPDS) provided the information contained therein is determined using approved EPA test methods (e.g. 40 CFR part 60 appendix A – EPA Method 24). Such records shall be current for the most recent five year period.

   (9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 9 of 5/15/02 Permit)

2. The emissions from the product quality printing/laminating unit (emission unit ID# 027) at the Packaging Technology Center shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded. If an emission point is not operated during the calendar month, then no

visible emission observation needs to be performed and a negative declaration shall be entered in the record stating the emission unit was not in operation. Should emission point operation be limited or intermittent, and/or adverse conditions (e.g. weather or darkness) prevail during the limited or intermittent operating period, no visible emission observation needs to be performed and a negative declaration shall be entered in the record along with the date of operation, the hours of operation of the emission unit and a notation indicating inclement weather.

(9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Test ports shall be provided at the following locations: all exhaust stacks associated with the product quality printing/laminating unit located in the Packaging Technology Center.
(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 10 of 5/15/02 Permit)

VIII. Process Equipment Requirements – (emission unit ID# 032 – Parts Washing Machines, 43 Gallon Wash Tank, and Manual Wash Tank)

A. Limitations

1. VOC emissions from the press parts washing machines (emission unit ID# 032) shall be controlled by a condenser recovery system. The unit shall be equipped with a temperature gauge. The condenser recovery system shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 3 of 5/30/01 Permit)

2. The operating rate of the three press parts washers shall not exceed 1 cycle/hour, per washing machine, when using a solvent based (greater than 4.5% VOC) wash solution. The operating rate of the three press part washing machines shall not exceed 3 cycles/hour, per washing machine, when using low solvent (4.5% VOC or less), based cleaning solution.

   (9 VAC 5-80-110 and Condition 4 of 5/30/01 Permit)

3. Except as specified in this permit, the solvent metal cleaning operation (emission unit ID# 032) is to be operated in compliance with (Rule 4-24) of State Regulations.

   (9 VAC 5-80-110 and Condition 5 of 5/30/01 Permit)

4. The water-based cleaning operations at the filter wash tank and the glue wash tank (emission unit ID# 032) shall be soap and water. A change in the operation may require a permit to modify and operate.

   (9 VAC 5-80-110 and Condition 6 of 5/30/01 Permit)

5. The solvents used in the press parts washing machines and the 43 gallon wash tank (emission unit ID# 032) shall contain no hazardous air pollutants (HAP) greater than one percent by weight. A change in the solvent HAP content may require a permit to modify and operate.

   (9 VAC 5-80-110 and Condition 7 of 5/30/01 Permit)

6. The three parts washing machines and the 43 gallon wash tank (emission unit ID# 032) shall use no more than 53 tons volatile organic compounds (VOC) per year, calculated as the sum of each consecutive 12 month period. The manual wash tank shall use no more than 20 tons VOC per year, calculated as the sum of each consecutive 12 month period. The total use for the solvent metal cleaning operation shall not exceed 73 tons VOC per year, calculated as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 9 of 5/30/01 Permit)

7. Visible emissions from the condenser recovery system process (associated with emission unit ID# 032) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
   (9 VAC 5-50-80 and 9 VAC 5-80-110)

8. Emissions from the operation of the three washing machines and the 43 gallon wash tank (emission unit ID# 032) shall not exceed the limits specified below:

Volatile Organic Compounds	15.7	lb/hr	53	tons/yr*

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 10 of 5/30/01 Permit)

9. Emissions from the operation of the manual wash tank (emission unit ID# 032) shall not exceed the limits specified below:

Volatile Organic Compounds	4.6	lb/hr	20	tons/yr*

   *Annual emissions shall be determined monthly as the sum of each consecutive 12 month period.
   (9 VAC 5-80-110 and Condition 11 of 5/30/01 Permit)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Regional Office. These records include, but are not limited to:

   a. The annual emissions from the press parts washing machines including the 43 gallon wash tank and the manual wash tank (emission unit ID# 032), calculated as the sum of each consecutive 12 month period. Combined records shall be kept for the press parts washing machines and the 43 gallon wash tank and individual records for the manual wash tank (emission unit ID# 032) to show compliance with permit Conditions 9, 10, and 11 (of the May 30, 2001 permit). The emissions may be calculated by use of a mass balance or other method as directed or approved by the DEQ.

   b. A mass balance supporting an emission estimate shall include: amount consumed in the process (records indicating amount of replacement solvent, or solution, will be acceptable measure of material consumed); amount of material disposed; and other records as required of any other manner in which VOC exits the process.

   c. Records shall be kept demonstrating the VOC content and HAP content of each solvent, or solution, used in the metal cleaning operation. Acceptable records to demonstrate VOC content shall be the use of current material safety data sheets (MSDS) or current certified product data sheets (CPDS) provided the information contained therein is determined using approved EPA test methods (e.g. 40 CFR part 60 appendix A – EPA Method 24)

      Current Material Safety Data Sheets (MSDS) shall be kept on site for each type of solvent or solution used in the metal cleaning operation – including the VOC content of each.

   d. The hourly emissions from the press parts washing machines and the 43-gallon wash tank. Hourly emissions may be calculated with an emission factor based on a six-month averaging period. The records supporting the emission factor shall include the emissions and the number of batches for the averaging period.

      These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.

   (9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 12 of 5/30/02 Permit)

2. The emissions from the condenser recovery system process **(control equipment associated with press parts washing machines (emission unit ID # 032))** shall be observed visually at least once each calendar month for at least a brief time period during normal operations to determine if they have above visible emissions (does not

include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having above normal visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded. If an emission point is not operated during the calendar month, then no visible emission observation needs to be performed and a negative declaration shall be entered in the record stating the emission unit was not in operation. Should emission point operation be limited or intermittent, and/or adverse conditions (e.g. weather or darkness) prevail during the limited or intermittent operating period, no visible emission observation needs to be performed and a negative declaration shall be entered in the record along with the date of operation, the hours of operation of the emission unit and a notation indicating inclement weather.

(9 VAC 5-20-110, 9 VAC 5-50-50 and 9 VAC 5-50-410)

3. Except as specified in this permit, the solvent metal cleaning operation (emission unit ID# 032) is to be operated in compliance with (Rule 4-24) of State Regulations.

   (9 VAC 5-80-110 and Condition 5 of 5/30/01 Permit)

4. Records shall be kept demonstrating compliance or non-compliance with "Emission standards for solvent metal cleaning operations using non-halogenated solvents (Rule 4-24)".

   (9 VAC 5-80-110)

5. Records shall be kept of the number of cycles/hr each press parts washer operated at and what % VOC cleaning solutions were used for each cycle.

   (9 VAC 5-80-110)

6. Records (i.e. MSDS and/or CPDS) shall be kept of the materials/solutions used to clean the filter wash tank and the glue wash tank.

   (9 VAC 5-80-110)

IX. Process Equipment Requirements for Aboveground Storage Tanks (ASTs) – (emission unit ID# I01 & I14, I02 – I13, I15 & I16 and I18 (Respectively) – (2) 5,000 gallon tanks (Tank ID Nos. 1 and 14), (12) 3,000 gallon tanks (Tank ID Nos. 2-13), (2) 4,000 gallon tanks (Tank ID Nos. 15 and 16), and (1) 10,000 gallon tank (Tank ID No. 18))

A. Emission Standards for Volatile Organic Compound Storage and Transfer Operations (Rule 4-25 or Article 25) of the State Regulations:

Standard for Volatile Organic Compounds and the required control technology guidelines:

1. Storage Tank I.D. Nos. 1-16 and 18 shall be equipped with a control method that will remove, destroy or prevent the discharge into the atmosphere of at least 60% by weight of volatile organic compound emissions during the filling of such tank. The 60% reduction by weight shall be achieved by filling of Storage Tank ID. Nos. 1-16 and 18 (IEU No. I10) through the use of a vapor control system such as a submerged fill pipe.
   (9 VAC 5-80-110)

X. Process Equipment Requirements – (emission unit ID# 021 – Nos. 1, 2, 3, 4, 6, 8, 9, 10 and 11 Printing Presses; Nos. 1, 2 and 3 Extruders - emission unit ID#024)

A. Limitations

1. Volatile organic compound emissions from the affected facilities at the Plant* shall be controlled and reduced as outlined in this Order.
   (9 VAC 5-80-110 and Condition 2 of Section E of RACT Order DSE-413A-86)

2. The "Group A Facilities" at the Plant* are: Nos. Presses Number 1, 2, 4, 6, 8, 9, 10 and 11. Nos. 1, 2, 3, and 4 Extruders Number and the treating station for No. 3 Press.
   (9 VAC 5-80-110 and Condition 3 of Section E of RACT Order DSE-413A-86)

3. The reduction in volatile organic compound emissions from the Group A facilities at the Plant* shall not be less than sixty-five (65) percent, by weight on a daily basis over the historical amount of solvent used to apply the same amount of solids.

   Across line averaging of emission reductions will be utilized to determine compliance with the specified daily emission reduction requirement.
   (9 VAC 5-80-110 and Condition 4 of Section E of RACT Order DSE-413A-86)

4. Compliance with the requirements of Condition 3 and 4 for the Group A facilities will be determined by the use of a "Daily VOC Model". The model will calculate daily emission reductions by comparing actual material used. The model will calculate daily emission by measuring, on a job basis, all VOC bearing materials consumed. Total job VOC usings shall be apportioned to individual days based on production records. The daily historical amount of solvent which would have been used shall be calculated by factors relating the daily amount of applied solids and the historical amount of solvent required to apply a pound of solids. The historical factors and compliance calculations are shown in Attachment A (of RACT DSE-413A-86).
   (9 VAC 5-80-110 and Condition 5 of Section E of RACT Order DSE-413A-86)

5. The Board has determined that RACT for No. 3 Laminator is an emission limit of 2.0 tons per day. Attachment B to this Order (DSE-413A-86) outlines the basis for this determination.

   (9 VAC 5-80-110 and Condition 7 of Section E of RACT Order DSE-413A-86)

   * "Plant" refers to Reynolds Metals Company's – Bellwood Printing Plant in Chesterfield County.

B. Monitoring and Recordkeeping

1. Compliance with the requirements of Condition 3 and 4 for the Group A facilities will be determined by the use of a "Daily VOC Model". The model will calculate daily emission reductions by comparing actual material used. The model will calculate daily emission by measuring, on a job basis, all VOC bearing materials consumed. Total job VOC usings shall be apportioned to individual days based on production records. The daily historical amount of solvent which would have been used shall be calculated by factors relating the daily amount of applied solids and the historical amount of solvent required to apply a pound of solids. The historical factors and compliance calculations are shown in Attachment A (of RACT DSE-413A-86).

   (9 VAC 5-80-110 and Condition 5 of Section E of RACT Order DSE-413A-86)

2. Records consisting of information as to the calculated daily reduction in emissions of volatile organic compounds from the affected facilities, except those emissions treated by add-on control equipment at the Plant,* shall be kept available at the plant* for at least a two** year time period. Reynolds shall provide the Board an exception report at the end of any quarter when the conditions of Section E, Condition 2, 3 and 4 of this Order (DSE-413A-86) are not met.

   (9 VAC 5-80-110 and Condition 6 of Section E of DSE-413A-86 RACT)

   * "Plant" refers to Reynolds Metals Company's – Bellwood Printing Plant in Chesterfield County.
   ** For the purpose of Title V compliance, records required by E.6. of Section E of RACT Order DSE-413A-86 shall be kept available at the Bellwood Printing Plant for at least a **five** year time period.

C. Reporting:

1. Records consisting of information as to the calculated daily reduction in emissions of volatile organic compounds from the affected facilities, except those emissions treated by add-on control equipment at the Plant,* shall be kept available at the plant* for at least a two** year time period. **Reynolds shall provide the Board an exception report at the end of any quarter when the conditions of Section E, Condition 2, 3 and 4 of this Order (DSE-413A-86) are not met.**

   (9 VAC 5-80-110 and Condition 6 of Section E of DSE-413A-86 RACT)

* "Plant" refers to Reynolds Metals Company's – Bellwood Printing Plant in Chesterfield County.

** For the purpose of Title V compliance, records required by E.6. of Section E of RACT Order DSE-413A-86 shall be kept available at the Bellwood Printing Plant for at least a **five** year time period.

XI. Process Equipment Requirements – (emission unit ID# 021 – Nos. 1, 2, 3, 4, 6, 8, 9, 10 and 11 Printing Presses; Nos. 1, 2 and 3 Extruders - emission unit ID# 024)

A. Bellwood Printing Plant Limitations:

1. In SIP Order DSE-413A-86, Section E, Conditions 2, 3, and 4*, the facilities are designated and the RACT emission limits are specified. Reynolds agrees to meet, or as appropriate continue to meet, the requirements set in DSE-413A-86 for the specified equipment beginning on December 31, 1987.

   (9 VAC 5-80-110 and Condition 2 of Section E of RACT Order DSE-414A-86)

2. In SIP Order DSE-413A-86 for the Bellwood Plant, Section E, Condition 5*, the Daily VOC Model is described. Reynolds agrees to implement this model on December 31, 1987. In the interim time period, Reynolds agrees to continue to utilize its existing record keeping system which is described in Condition 8 in this Section of this Order.

   (9 VAC 5-80-110 and Condition 3 of Section E of RACT Order DSE-414A-86)

3. Reynolds agrees to install the specified incineration equipment on No. 1 Laminator by December 31, 1987.

   (9 VAC 5-80-110 and Condition 4 of Section E of RACT Order DSE-414A-86)

* As listed under "X. Process Equipment Requirements – (emission unit ID# 021 – Nos. 1, 2, 3, 4, 6, 8, 9, 10 and 11 Printing Presses; Nos. 1, 2, and 3 Extruders - emission unit ID# 024).

B. Bellwood Printing Plant Monitoring and Recordkeeping:

1. In SIP Order DSE-413A-86, Section E, Conditions 2, 3, and 4*, the facilities are designated and the RACT emission limits are specified. Reynolds agrees to meet, or as appropriate continue to meet, the requirements set in DSE-413A-86 for the specified equipment beginning on December 31, 1987.

   (9 VAC 5-80-110 and Condition 2 of Section E of RACT Order DSE-414A-86)

2. In SIP Order DSE-413A-86 for the Bellwood Plant, Section E, Condition 5*, the Daily VOC Model is described. Reynolds agrees to implement this model on December 31, 1987. In the interim time period, Reynolds agrees to continue to utilize

its existing record keeping system which is described in Condition 8 in this Section of this Order.

(9 VAC 5-80-110 and Condition 2 of Section E of RACT Order DSE-414A-86)

* As listed under "X. Process Equipment Requirements – (emission unit ID# 021 – Nos. 1, 2, 3, 4, 6, 8, 9, 10 and 11 Printing Presses; Nos. 1, 2 and 3 Extruders - emission unit ID# 024).

XII. Facility Wide Conditions

A. Existing source standard for visible emissions

Unless otherwise specified in this part, no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section. This standard is applicable to the following emission units: 021 and 024.
(9 VAC 5-50-80)

B. Startup, Shutdown and Malfunction

At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-40-30 or 9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows, or alternate EPA approved test methods as approved by DEQ:

The following table is only required for those pollutants that have emission limits.

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a
VOC Content	EPA Methods 24, 24a
NO_x	EPA Method 7
SO_2	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

XIII. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
I17	Storage Tank – AST #17 125,000 gallon tank - #6 fuel oil constructed in 1975	5-80-720 B. B2	VOC	
I19	One Natural Gas PDC Boiler	5-80-720 C. C2a	Products of combustion; TSP/PM-10, CO, NOx, SO_2, VOC	1.5 mmbtu/hr
I20	Hot Water Heater (Make Ready/Washroom)	5-80-720 C. C2a		0.42 Mmbtu/hr
I21	Hot Oil Heater	5-80-720 C 2b		0.57 Btu/hr
I22	Portable Generator in Maintenance Shed	5-80-720 C. 1b		<36,413 Btu/hr
I23	Oil/Lubricant Dispensing in Maintenance Area	5-80-720 C.-C3	VOC	55 gallon drums and smaller
I24	Trim Handling System for Balers, Cutters, Extruders	5-80-720 B.-B1	Particulate Matter	
I25	Paint Spray Booth	5-80-720 B. B2	VOC	
I26	Maintenance Dept. Parts Washer (3)	5-80-720 B. B2	VOC	
I27	Oil Water Separator	5-80-720 B. B2	VOC	
I28	Core Cutting	5-80-720 B. B1	PM	
I29	Resin Pellet Conveying System	5-80-720 B. B1	PM	
I30	Rubber Roll Grinder	5-80-720 B. B1	PM	
I31	Wax Heaters	5-80-720 B. B2	VOC	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
NA		

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XIV. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless a timely and complete renewal application consistent, with 9 VAC 5-80-80, has been submitted, to the Department, by the owner, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

   (9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

   b. All deviations from permit requirements. For purposes of this permit, a deviation means any condition determined by observation, data from any monitoring protocol or any other monitoring which is required by the permit that can be used to determine compliance. Deviations include exceedances documented by continuous emission monitoring or excursions from control performance indicators documented through periodic or compliance assurance monitoring.
   (9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. A description of the means for assessing or monitoring the compliance of the source with its emissions limitations, standards, and work practices.

3. The identification of each term or condition of the permit that is the basis of the certification.

4. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the certification period.

5. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

6. The status of compliance with the terms and conditions of this permit for the certification period.

7. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall report by the next business day any deviations from permit requirements or any excess emissions, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.
(9 VAC 5-80-110 F.2)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours, notify the Director, Piedmont Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. The portion of the facility which is subject to the provision of Article 4 Chapter 3 or Article 5 Chapter 3 (toxics) shall shut down immediately upon request of the DEQ. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Piedmont Region.
(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Action for Cause

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
(9 VAC 5-80-110 G.4)

2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:

   a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is potential of, a resulting emissions increase;

   b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;

   c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emissions cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;

   d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;

   e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;

   f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);

g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a (1) and 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355.
(9 VAC 5-80-110 H)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-50)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.

d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

Attachment A:

The following emission units are subject to [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825], Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing:

Emission Unit ID #021

Sources included under emission unit ID#021:
No. 1 Printing Press
No. 2 Printing Press
No. 3 Printing Press
No. 4 Printing Press
No. 5 Printing Press
No. 8 Printing Press
No. 9 Printing Press
No. 10 Printing Press
No. 11 Printing Press
No. 1 Extruder
No. 2 Extruder
No. 3 Extruder

Emission Unit ID #022
No. 5 Extruder

Emission Unit ID #023:
No. 7 Printing Press

Emission Unit ID #024:
No. 3 Laminator

Emission Unit IDs #029 and #030:
No. 2 Laminator

I. Emission Limitations
#001 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825] Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing.

The owner/operator shall limit emissions to no more than five percent of the organic HAP applied for the month; or to no more than four percent of the mass of inks, coatings, varnishes, adhesives, printers, solvents, reducers, thinners, and other materials applied for the month; or to no more than 20 percent of the mass

of solids applied for the month; or to a calculated equivalent allowable mass based on the organic HAP and solids contents of the inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month.

II. Testing Requirements

#002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.827] Subpart KK – National Emission Standards for the Printing and Publishing Industry

Performance Test Methods

In the event that a control device is used for demonstration of compliance with a standard, a performance test of a control device to determine destruction efficiency for the purpose of meeting the requirements of Condition #001 shall be conducted by the owner or operator in accordance with the following:

(a) An initial performance test to establish the destruction efficiency of an oxidizer and the associated efficiency of an oxidizer and the associated combustion zone temperature for a thermal oxidizer and the associated catalyst bed inlet temperature for a catalytic oxidizer shall be conducted and the data reduced in accordance with the following reference methods and procedures:

(1) Method 1 or 1A of 40 CFR part 60, appendix A is used for sample and velocity traverses to determine sampling locations.

(2) Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A is used to determine gas volumetric flow rate.

(3) Method 3 of 40 CFR part 60, appendix A is used for gas analysis to determine dry molecular weight.

(4) Method 4 of 40 CFR part 60, appendix A is used to determine stack gas moisture.

(5) Methods 2, 2A, 3, and 4 of 40 CFR part 60, appendix A shall be performed, as applicable, at least twice during each test period.

(6) Method 25 of 40 CFR part 60, Appendix A, shall be used to determine organic volatile matter concentration. The owner or operator shall submit notice of the intended test method to the Department for approval along with notice of the performance test

required under this section. The owner or operator may use Method 25A of 40 CFR part 60, appendix A, if

(i) An exhaust gas organic volatile matter concentration of 50 parts per million by volume (ppmv) or less is required to comply with the standards of condition #001, or

(ii) The organic volatile matter concentration at the inlet to the control system and the required level of control are such to result in exhaust gas organic volatile matter concentrations of 50 ppmv or less, or

(iii) Because of the high efficiency of the control device, the anticipated organic volatile matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.

(7) Each performance test shall consist of three separate runs; each run conducted for at least one hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining organic volatile matter concentrations and mass flow rates, the average of results of all runs shall apply.

(8) Organic volatile matter mass flow rates shall be determined using Equation 20 of 40 CFR Subpart 63.827.

(9) Emission control device efficiency shall be determined using Equation 21 of 40 CFR Subpart 63.827.

(b) The owner or operator shall record such process information as may be necessary to determine the conditions of the performance test. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(c) For the purpose of determining the value of the oxidizer operating parameter that will demonstrate continuing compliance, the time-weighted average of the values recorded during the performance test shall be computed. For an oxidizer other than catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum combustion temperature. For a catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum gas temperature upstream of the catalyst bed. These minimum temperatures are the

operating parameter values that demonstrate continuing compliance with the requirements of Condition #001.

III. Monitoring Requirements

#003 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825] Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing.

When demonstrating compliance in accordance with Condition #004(f) (§63.825(c)(1)(xi)(D), or 63.825(d)(1)(xi)(D), owners or operators may calculate the monthly allowable HAP emissions, for demonstrating compliance as follows:

(a) Determine the as-purchased mass of each ink, coating, varnish, adhesive, printer, and other solids-containing material applied each month.

(b) Determine the as-purchased solids content of each ink, coating, varnish, adhesive, primer, and other solids-containing material applied each month.

(c) Determine the as-purchased mass fraction of each ink, coating, varnish, adhesive, primer, and other solids-containing material which was applied at 20 weight-percent or greater solids content, on as-applied basis.

(d) Determine the total mass of each solvent, diluent, thinner, or reducer added to materials which were applied at less than 20 weight-percent solids content, on an as-applied basis, each month.

(e) Calculate the monthly allowable HAP emissions, Ha. using Equation 17 of CFR Subpart 68.828.

#004 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825] Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing.

The owner/operator shall demonstrate compliance with this standard by following one of the following procedures:

(a) Demonstrate that each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied during the month

contains no more than 0.04 weight-fraction organic HAP, on an as-purchased basis, as determined in accordance with 40 CFR Subpart 63.827.

(b) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied during the month contains no more than 0.04 weight-fraction organic HAP, on a monthly average as-applied basis as determined in accordance with paragraphs (b)(1) or (2) below. The owner or operator shall calculate the as-applied HAP content of materials which are reduced, thinned, or diluted prior to application, as follows:

(1) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied on an as-purchased basis in accordance with 40 CFR subpart 63.827.

(2) Calculate the monthly average as-applied organic HAP content, of each ink, coating, varnish, adhesive, primer, and other solids-containing material using Equation 3 contained in 40 CFR Subpart 63.825.

(c) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied, either

(i) Contains no more than 0.04 weight-fraction organic HAP on a monthly average as-applied basis, or

(ii) Determine the as-applied solids content following the procedure in 63.827(c)(2) of all materials which do not meet the requirements of paragraph (c)(1)(i) of this section. The owner or operator may calculate the monthly average as-applied solids content of materials which are reduced, thinned, or diluted prior to application, using Equation 4, of 40 CFR Subpart 63.825

(iii) Calculate the as-applied organic HAP to solids ratio, for all materials which do not meet the requirements of paragraph (c)(1)(i) of this section, using Equation 5, of 40 CFR Subpart 63.825.

(d) Demonstrate that the monthly average as-applied organic HAP content of all materials applied is less than 0.04 kg HAP per kg of material applied, as determined by Equation 6, of 40 CFR Subpart 63.825.

(e) Demonstrate that the monthly average as-applied organic HAP content on the basis of solids applied is less than 0.20 kg HAP per kg solids applied as determined by Equation 7, of 40 CFR 63.825.

(f) Demonstrate that the total monthly organic HAP applied as determined by Equation 8, contained in 40 CFR 63.825.

(g) Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent for each month. If the affected source operates more than one control device, and has only always-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of Condition #005.

(h) Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.02 kg organic HAP emitted per kg solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of §63.825. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of §63.825 when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of §63.825 when emissions are controlled by an oxidizer.

(i) Operate a capture system and control device and limit the organic HAP emissions rate to no more than 0.04 kg organic HAP emitted per kg material applied as determined in a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of §63.825. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of §63.825 when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of §63.825 when emissions are controlled by an oxidizer.

(j) Operate a capture system and control device and limit the monthly organic HAP emission to less than the allowable emissions as calculated in accordance with paragraph (e) of §63.825. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of §63.825. Otherwise,

the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of §63.825 when emissions from the effected source are controlled by a solvent recovery device or the procedure in paragraph (d) of §63.825 when emissions are controlled by an oxidizer.

#005 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825] Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing.

In the event that a control device is used for demonstration of compliance with the standard, compliance with the overall organic HAP control efficiency requirement in Condition #001, each owner or operator using an oxidizer to control emissions for the purposes of compliance with 40 CFR 63.825 shall show compliance by following the procedures below:

(a) Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters following the procedures below:

(1) Determine the oxidizer destruction efficiency (E) using the procedure in 63.827(d) of CFR Part 63.

(2) Determine the capture system capture efficiency (F) in accordance with 63.827(e)-(f) of 40 CFR Part 63.

(3) Calculate the overall organic HAP control efficiency, (R), achieved using Equation 13 of 40 CFR Subpart 63.825.

(4) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on materials applied or emission of less than the calculated allowable organic HAP, measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material applied on the press or group of presses controlled by a common solvent recovery device during the month.

(5) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of

each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in 63.827(b)(2) of 40 CFR Part 63.

(6) If demonstrating compliance on the basis of organic HAP emission rate based on solids or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in 63.827(c)(2) of 40 CFR Part 63.

(7) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H, for each month using Equation 14 of 40 CFR Subpart 63.825.

(8) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, for each month using Equation 15 of 40 CFR Subpart 63.825.

(9) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 16 of 40 CFR Subpart 63.825.

(10) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameters established in accordance with 63.828(a)(4)-(5) whenever a product and packaging rotogravure or wide-web flexographic press is operating.

(11) The affected source is in compliance, if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with 63.828(a)(4) for each three- hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with 63.828(a)(5) for each three hour period, and

The overall organic HAP control efficiency, R, is 95 percent or greater, or

The organic HAP emission rate based on solids applied, L, is 0.20 kg organic HAP per kg solids applied or less, or

The organic HAP emission rate based on material applied, S, is 0.04 kg organic HAP, Ha, as determined using paragraph (e) of this section.

(b) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency. Compliance shall be demonstrated in accordance with the requirements of paragraph (c)(2) of this section.

#006 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825] Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing.

In the event that a control device is used for demonstration of compliance with the standard, an owner or operator complying with the requirements of Condition #001 through the use of an oxidizer and demonstrating continuous compliance through monitoring of an oxidizer operating parameter shall:

(a) For an oxidizer other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of 1 percent of the temperature being monitored in C or 1 C, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

(b) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of 1 percent of the temperature being monitored in C or 1 C, whichever is greater. The thermocouple or temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

IV. Recordkeeping Requirements

#007 [40 CFR Part 63 NESHAPS for source categories § 40 CFR 63.825] Subpart KK – National Emission Standards for the Printing and Publishing Industry Standards: Product and packaging rotogravure and wide-web flexographic printing.

For each facility which meets the criteria of condition #001, the owner or operator shall maintain records needed to demonstrate compliance with this standard. These records may include material usage, HAP usage, volatile matter usage, and solid usage. If demonstrating compliance using control equipment, these records may also include continuous emission monitor data, and control device and capture system operating parameter data. The owner/operator shall maintain these records for the most recent five year period and shall be made available to a Department representative upon request.

V. Reporting Requirements

No additional reporting requirements exist except as provided in other sections of this permit including reporting conditions under the Title V General requirements section of this permit.

VI. Work Practice Standards

No additional work practice requirements exist except as provided in other sections of this permit including work practice standards under the TitleV General Requirements section of this permit.

VII Additional Requirements

No additional requirements exist except as provided in other sections of this permit including additional requirements under the Title V General Requirements section of this permit.